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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,915	04/12/2001	Wayne L. Hutchinson	8599	3838

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EXAMINER

EHICHIOYA, FRED I

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,915

Applicant(s)

HUTCHINSON, WAYNE L.

Examiner

Fred I. Ehichioya

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, with respect to claims 1 – 20, filed February 23, 2004 have been fully considered but they are not persuasive for the following reasons.

2. Applicant argues:

(a) Jindal nor Bauer reference standing alone or in combination with one another, teach or suggest each and every element or step of Applicant's amended independent claims 1, 8, and 16 (Page 7, Para 2).

(b) i – In Jindal a schema is not been modified or generated all; rather, in Jindal a large centralized aggregated index file is created.

ii – Bauer's teaching require multiple schemas and do not aggregate multiple schemas into a single schema and does not modify a schema single keyword within a table schema where those values are non index values (Page 7, Para 4).

(c) Jindal does not teach first and second values associated with a single keyword within a table schema where those values are non index values (Page 8, Para 4).

In response to applicant's arguments (a) and (c): Examiner wish to state that the amendment to independent claims 1, 8 and 16 “within the table schema, and wherein the first and second values are not index values or offset values” is a negative limitation that rendered the claims indefinite because it is an attempt to claim the invention by

excluding what the inventors did not invent rather than distinctly and particularly pointing out what they did invent. *In re Schechter*, 205F.2d 185,98 USPQ 144 (CCPA) 1953).

Also, see claim rejections 35 USC 112 below.

In response to applicant's argument (b): Examiner wish to state that applicant's claim limitations do not include "modifying schema" or "generating schema". If applicant wishes to incorporate these limitations into the claims, applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 162 USPQ 541,550-51 (CCPA 1969).

3. Examiner respectfully disagrees with all of the allegations as argued. Examiner, in his previous office action, pointed out exact locations in the cited prior art.

4. In view of the above, the examiner contends that all limitations as recited in the claims have been addressed in this Office Action. For the above reasons, Examiner believed that rejection of the last Office action was proper.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 8 and 16 are rejected under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 8 and 16, they recite the limitation of “within the table schema, and wherein the first and second values are not index values or offset values”. This claim limitation is a negative limitation that rendered the claims indefinite because it is an attempt to claim the invention by excluding what the inventors did not invent rather than distinctly and particularly pointing out what they did invent. *In re Schechter*, 205F.2d 185,98 USPQ 144 (CCPA) 1953). Also, this claimed limitation defines the invention in terms of what it was not, rather than pointing out the invention; therefore, renders claims 1, 8 and 16 indefinite.

Regarding claims 2 – 7, these claims depend from claim 1 and therefore inherit its deficiencies.

Regarding claims 9 – 15, these claims depend from claim 8 and therefore inherit its deficiencies.

Regarding claims 17 – 20, these claims depend from claim 16 and therefore inherit its deficiencies.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 – 3, 5 – 6, 8, 9, 11, and 15 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,845,273 issued to Ajay Kumar Jindal (hereinafter “Jindal”) in view of U.S. Patent 5,926,816 issued to Jonathan A. Bauer et al (hereinafter “Bauer”).

Regarding claims 1 and 8, Jindal teaches a method of dynamically configuring a cardinality of keyword attributes having executable instructions, comprising the steps of:

receiving a table having a table schema comprising an identification field, a keyword field, and a keyword value field (see column 3, lines 20 - 30)

inserting a first value into the table wherein the first value is part of the keyword value field and associated with a first keyword which is part of the keyword field (see column 13, lines 66 – 67; column 20, lines 12 – 22 and Fig. 10).

inserting a second value into the table wherein the second value is part of the keyword value field and associated with the first keyword (see column 14, lines 1 – 4; column 20, lines 22 – 25); and

associating a first identification which is part of the identification field with the first keyword, the first value, and the second value within the table schema, and wherein the first and second values are not index values or offset values (see column 15, lines 62 – 65).

Jindal does not explicitly teach table schema.

However, Bauer teaches table schema (see column 8, lines 40 – 44)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Bauer with the teaching of Jindal wherein table schema is a diagrammatic representation of table objects. The motivation is that the table schema outlines the structured framework of the database.

Regarding claim 2, Bauer teaches ensuring the table schema remains unchanged after the insertions into the table (see column 16, lines 36 - 45).

Regarding claim 3, Jindal teaches establishing a first row of the table to house the first identification, the first keyword, and the first value (see Fig.10 step 1012 and column 20, lines 12 - 22) and

establishing a second row of the table to house the first identification, the first keyword, and the second value (see Fig.10 step 1012 and column 20, lines 22 - 25).

Regarding claim 5, Jindal teaches the fields of the table are operable to be searched (see column 20, lines 29 – 36).

Regarding claim 6, Jindal teaches the first value is not equal to the second value (see column 20, lines 59 - 64).

Regarding claim 9, Jindal teaches creating a first table entry in a table defined by the table schema for the first keyword and the first value (see Fig.10 step 1012 and column 20, lines 12 – 22); and

creating a second table entry in the table defined by the table definition for the first keyword and the second value (see Fig.10 step 1012 and column 20, lines 22 - 25).

Jindal does not explicitly teach table schema.

However, Bauer teaches table schema (see column 8, lines 40 – 44)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Bauer with the teaching of Jindal wherein table schema is a diagrammatic representation of table objects. The motivation is that the table schema outlines the structured framework of the database.

Regarding claim 11, Hoover teaches creating a first and second table from the table schema (see column 11, lines 51 - 67);

inserting a first identification, the first keyword, and the first value into the first table (see column 14, lines 1 – 20 “core keyword list is the first table”);

inserting the first identification, the first keyword, and the first value into the Second table (see column 11, lines 51 – 54 “virtual keyword list is the second table”);

and inserting the first identification, the first keyword, and the second value into the second table (see column 13, lines 49 - 67).

Jindal does not explicitly teach table schema.

However, Bauer teaches table schema (see column 8, lines 40 – 44)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Bauer with the teaching of Jindal wherein table schema is a diagrammatic representation of table objects. The motivation is that the table schema outlines the structured framework of the database.

Regarding claim 15, Jindal teaches creating a first and a second row of a table to house the first and the second values, respectively, each row housing the first identification and the first keyword (see column 17, lines 3 - 8).

Regarding claim 16, Jindal teaches a method of expanding a keyword by permitting one or more keyword values to be associated with each keyword having executable instructions, comprising the steps of:

receiving a table having an identification field, a keyword field, and a keyword value field, wherein the table includes a table schema (see column 13, lines 49 - 53);

and receiving a first keyword associated with the keyword field and having a first value and a second value, each value associated with the keyword value field within the table schema, and wherein the first and second values are not index values or offset values (see column 14, lines 61 – 67 and column 15, lines 1 – 6).

Jindal does not explicitly teach table schema.

However, Bauer teaches table schema (see column 8, lines 40 – 44)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Bauer with the teaching of Jindal wherein table schema is a diagrammatic representation of table objects. The motivation is that the table schema outlines the structured framework of the database.

8. Claims 4, 10, and 17 - 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal in view of Bauer and further in view of U.S. Patent 6,581,062 issued to Denise L. Draper et al (hereinafter "Draper").

Regarding claim 4, Jindal and Bauer teach the claimed subject matter as discussed in claim 1. Jindal or Bauer does not explicitly teach creating a composite table key from the, identification field, the keyword field, and the keyword value field.

Draper teaches creating a composite table key from the, identification field, the keyword field, and the keyword value field (see column 6, lines 39 - 56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Draper with the teaching of Jindal and Bauer wherein composite key consists two or more fields in a table. The motivation is that the composite key allows two or more tables to be merged and searched.

Regarding claim 10, Jindal and Bauer teach the claimed subject matter as discussed in claim 8. Bauer teaches table schema (see column 8, lines 40 – 44).

Jindal or Bauer does not explicitly teach creating a composite key using each field of the table schema wherein the key is operable to access a table associated with the table schema.

Draper teaches creating a composite key using each field of the table schema wherein the key is operable to access a table associated with the table schema (see column 6, lines 40 - 56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Draper with the teaching of Jindal and Bauer wherein composite key consists two or more fields in a table and table schema is a diagrammatic representation of table objects. The motivation is that the composite key allows two or more tables to be merged and searched.

Regarding claim 17, Draper teaches creating a key to access the table wherein the key is comprised of the identification field, the keyword field, and the keyword value field (see column 6, lines 46 - 50).

Regarding claim 18, Jindal teaches searching a second table with the key to acquire a location within the table to being a search (see column 4, lines 66 - 67).

Regarding claim 19, Jindal teaches a performance of the search of the table is improved using the location and the key (see column 4, lines 60 - 61).

Regarding claim 20, Jindal teaches returning a row associated with the table when the key is found within the table (see column 4, lines 40 - 44).

9. Claims 7, and 12 - 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal in view of Bauer and further in view of U.S. Patent 5,560,005 issued to Michael K. Hoover et al (hereafter "Hoover").

Regarding claim 7, Jindal and Bauer teach the claimed subject matter as discussed in claim 1. Jindal or Bauer does not explicitly teach a cardinality between the keyword field and the keyword value field is a one-to-many relationship.

Hoover teaches a cardinality between the keyword field and the keyword value field is a one-to-many relationship (see column 19, lines 27 – 35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Hoover with the teaching of Jindal and Bauer wherein keyword field and the keyword value field has a one-to-many relationship. The motivation is that one-to-many relationship allows the keyword to be assigned to multiple values.

Regarding claim 12, Jindal and Bauer teach the claimed subject matter as discussed in claim 8. Jindal or Bauer does not explicitly teach searching the first table and second table.

Hoover teaches receiving a search comprising the first identification, the first keyword and the second value (see column 30, lines 46 – 47);

searching the first table to acquire a first location (see column 30, lines 47 – 51 and column 33, lines 15 – 17); and

searching the second table beginning at the first location within the second table until the second value is located (see column 30, lines 52 – 56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Hoover with the teaching of Jindal and Bauer wherein the tables are searched based on the identification and keyword. One table relates object identifiers to other object attribute tables. The motivation is that since attributes of an object can exist in one or more remote locations, mapping table by object identifier permits assembly or joining of data to construct a current complete set of object attributes associated with any given object. This permits search terms to object identifiers and also to rapid searching to find an object identifier associated with the predetermined search terms while at the same time retrieving desired information.

Regarding claim 13, Hoover teaches returning a row of the second table wherein the second value is housed (see column 30, lines 57 – 60).

Regarding claim 14, Hoover teaches searching the first table improves access into the second table to retrieve the row (see column 25, lines 30 – 47).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred I. Ehichioya whose telephone number is 703-305-8039. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred I. Ehichioya
Examiner
Art Unit 2172
April 30, 2004



SHAHID ALAM
PRIMARY EXAMINER